C-123LW Supplemental Instructions

Dual Master ChimeCom System

- REFER TO INSTALLATION MANUAL INSIDE C-123L/A BOX FOR STANDARD INSTALLATION INFORMATION -

The C-123LW Dual Master ChimeCom set provides chime, communication, and door release for one door and two inside locations. This supplemental instruction manual addresses many of the additional functions and modifications for the Chime Com system, including installation and troubleshooting information.

MASTER STATION:

C-ML/A	Master station with door release button (Normally Open)

COMPATIBLE DOOR STATIONS: *(Weather resistant, made for outdoor use)*

C-D	Surface mount, included in C-123/A and C-123LW kit
LE-D	Surface mount, plastic door station (replacement for C-D)
LE-DA	Flush mount in 2-gang box, stainless steel cover
LE-SS-1G	Vandal & weather resistant, 1-gang flush mt, stainless steel
LE-SS	Vandal & weather resistant, 2-gang flush mt, stainless steel
LS-NVP/B	Vandal & weather resistant, 3-gang flush mt, white powder-coat finish

OPTIONAL COMPONENTS & ACCESSORIES:

RY-AC/A	External signaling relay (Requires 12VDC, 500mA power supply, locally available)
DAK-2S	Dual master adaptor kit (2 component modules) (1 kit per 2 master stations. Use 2 DAK-2S for up to 4 total masters stations)
SBX-SS-1G	Surface mount stainless steel box for LE-SS-1G
SBX-2G	Surface mount stainless steel box for LE-SS, LE-DA
SBX-NVP	Surface mount box for LS-NVP/B
EL-9S	Door strike (for interior wood frame doors only)
PT-1210N	AC 12V Transformer (for EL-9S)
822202	2 conductor, 22AWG, Shielded wire for up to 245', (500' and 1000' boxes)
821802	2 conductor, 18AWG, Shielded wire for up to 590', (1000' box) *Install two separate runs of cable, one for the intercom and one for the door release.*

C-123L/A Set

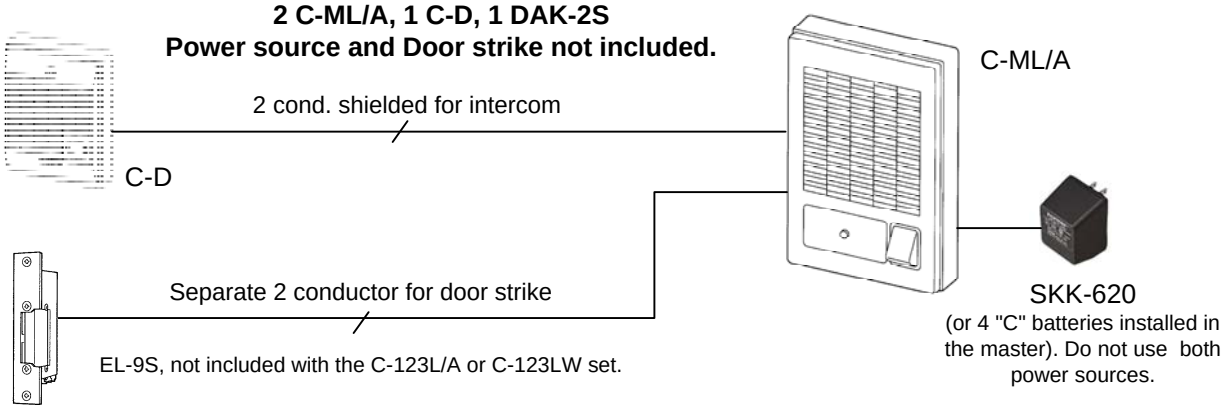
LE-SS-1G LE-DA

LE-SS LS-NVP/B

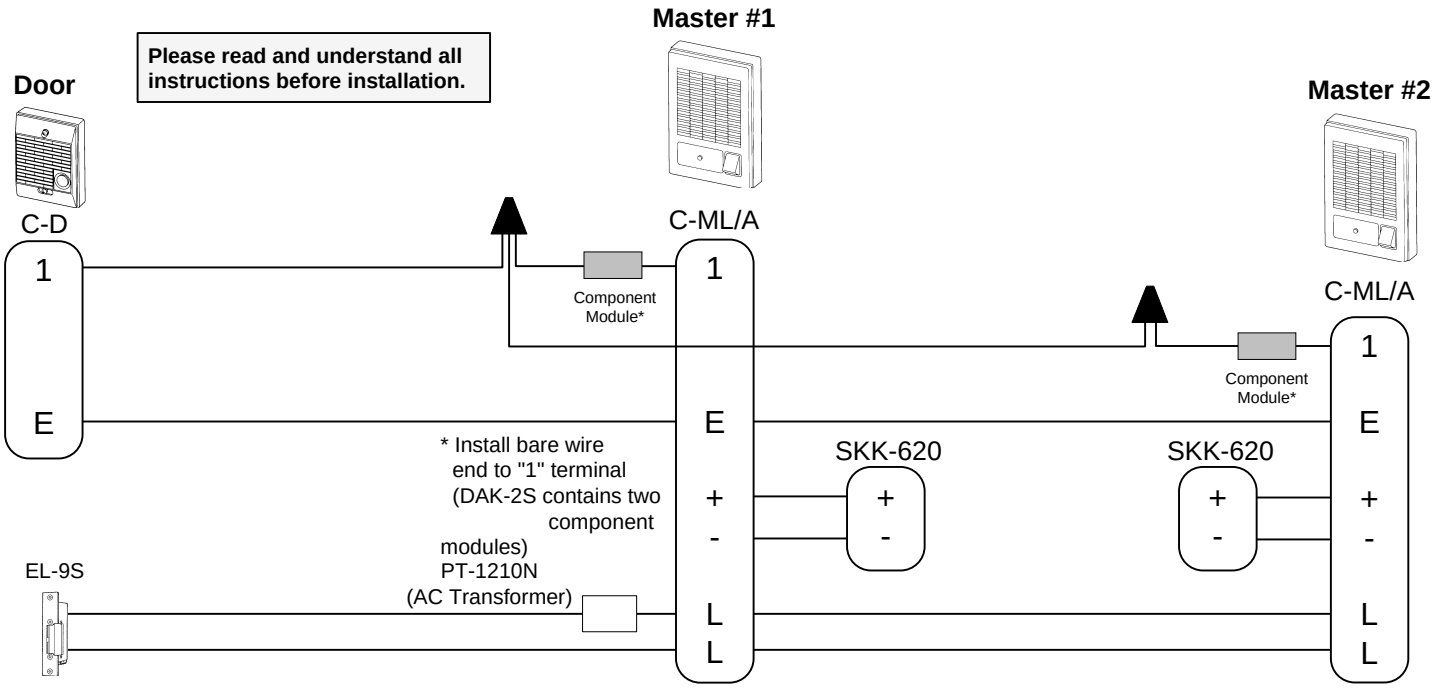
DAK-2S
(2 component modules per kit)

DOOR RELEASE WIRES MUST BE IN A SEPARATELY JACKETED CABLE FROM THE INTERCOM WIRING.

C-123LW Set contains:
2 C-ML/A, 1 C-D, 1 DAK-2S
Power source and Door strike not included.


C-ML/A
2 cond. shielded for intercom
C-D
Separate 2 conductor for door strike
EL-9S, not included with the C-123L/A or C-123LW set.
SKK-620
(or 4 "C" batteries installed in the master). Do not use both power sources.

WIRING DIAGRAM: Dual Master Chime Com System with DAK-2S Dual Master Adaptor



IMPORTANT!!!
Each master <u>REQUIRES</u> an SKK-620 power supply, or 4 "C"batteries. (Do not install both on one C-ML/A.)

OPERATION NOTES:

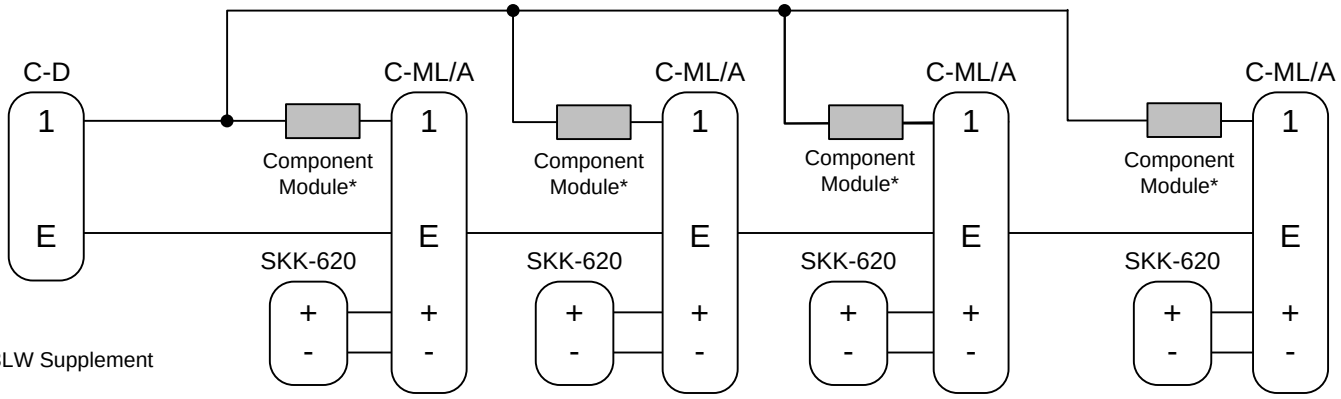
1. **Only one master can be used at a time.**
2. **If both masters are activated, a feedback will be heard through the system when either TALK button is pressed.**
3. **If feedback occurs, wait approximately 15 seconds, or until the master turns off automatically. At that time, communication can continue normally.**

INSTALLATION GUIDELINES:

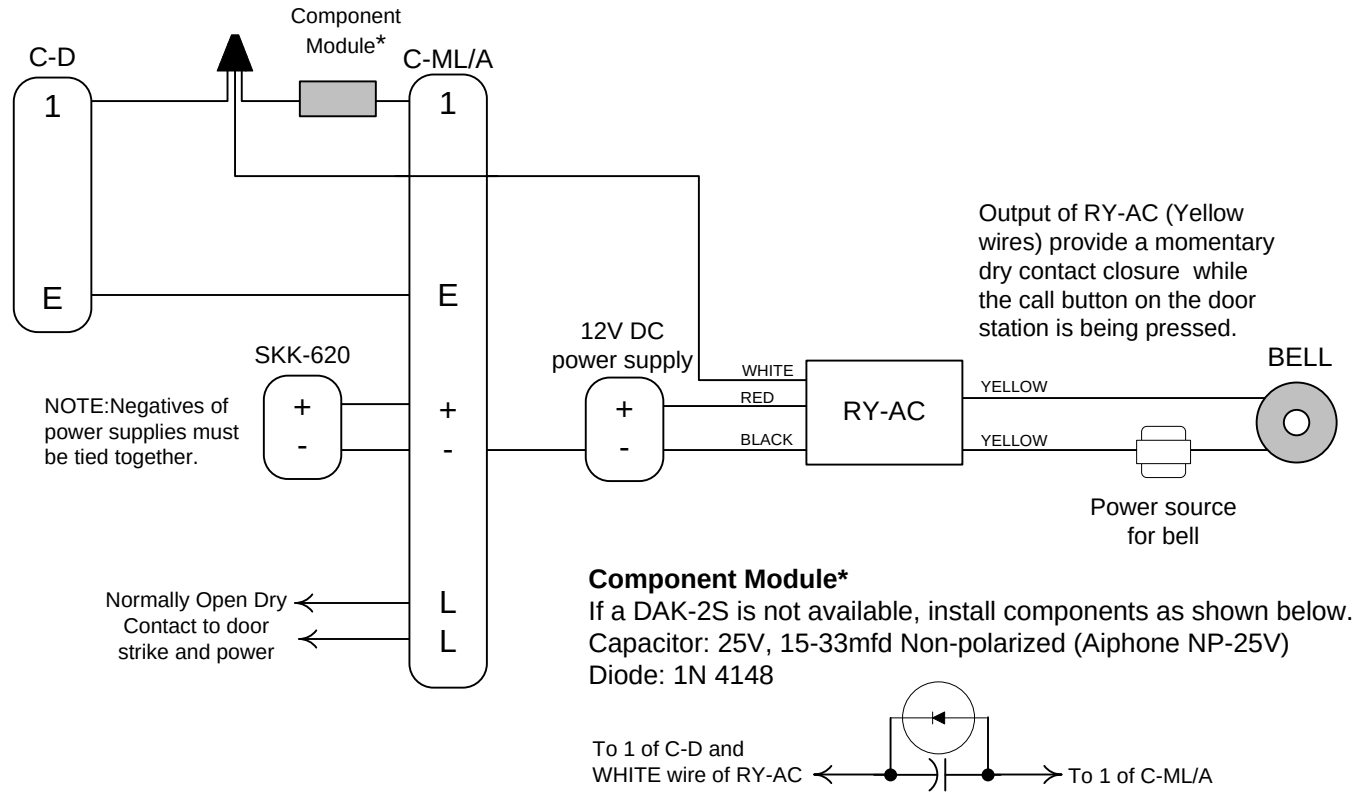
1. Run 2 conductor wire from the door station to the first master, then continue to the second master.
2. Install the units at the desired locations. (Do not install stations back to back on opposite sides of a wall.)
3. Separate SKK-620 power supplies or four "C" batteries are *<u>required for each</u>* master station.
4. DO NOT install both a power supply and batteries at any one master.
5. Install the bare wire leg of the component module directly onto the "1" terminal of the C-ML/A's.
6. Attach the wire coming from the "1" terminal of the C-D to the colored wire end of the component modules at both masters. (The component modules will easily fit inside the space available.)
7. Connect the "E" terminals between the door station and master stations.
8. If door release is included, use a separate 2-conductor wire from the "L" terminals of the masters through an AC transformer and to the door strike.
9. The EL-9S is designed for a standard wood framed door, and for light to medium usage. If a different type of door is in place, install a strike appropriate for the door.
10. The door release button on the master station is a "Normally Open" contact closure for an electric strike. See page 3 for modification to "Normally Closed" if a magnetic lock is used.

4 C-ML/A Master Stations with 1 Door

NOTE: In a multi-master system, all masters only talk to the door station, and only one master can be on at a time.



WIRING DIAGRAM: C-123L/A System with External Signaling using RY-AC Relay



Component Module*

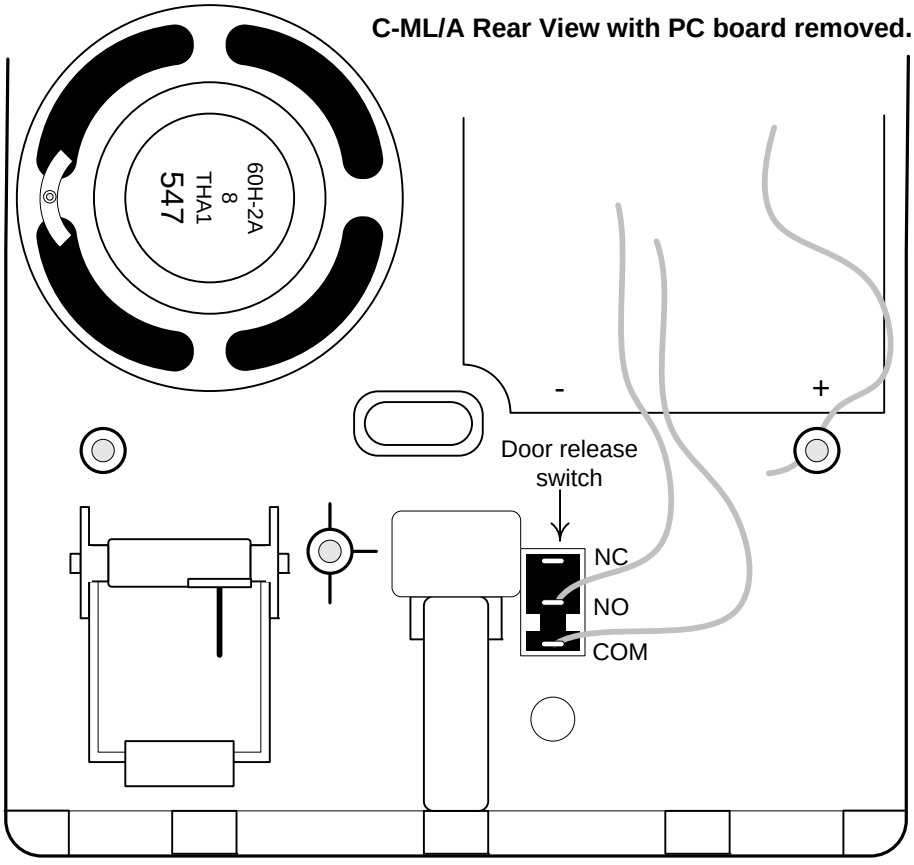
If a DAK-2S is not available, install components as shown below.
Capacitor: 25V, 15-33mfd Non-polarized (Aiphone NP-25V)
Diode: 1N 4148

MODIFICATION INSTRUCTIONS:
C-ML/A with Door Release contact Modified to Normally Closed (for Magnetic Lock)

Magnetic locks require Normally Closed contacts, keeping power applied to the magnet to keep the door locked, and breaking power to release the door. These instructions explain how to change the contact in the C-ML/A to Normally Closed.

1. Remove back chassis of C-ML/A and move PC-754 aside. Black door release switch will be visible.
2. On the switch, move* the wire from the NO contact (middle position) to the NC contact (top position). **Desoldering and resoldering is required.*
3. This modification will change the door release button's function to Normally Closed, to be used with a magnetic lock device.
4. Switch contact rating is 1A at 50V AC.

C-ML/A Rear View with PC board removed.



INSTALLATION TIPS:

1. Use shielded wire for the communication path, and ground one end of the shield to an earth ground.

2. Run intercom wire at least 20" away from AC wiring, fluorescent lights or dimmer switches.

3. Keep intercom cable away from alarm, data, phone, video cables, and any other potential source of interference.

4. Door release wires must be in a separately jacketed cable from the intercom wires. Use two separate cables; one for audio and one for door release.

5. When installing a second master station, wire must be run from the first master station, not from the door station. See diagram on page 2.

6. Do not install the master station near light switches, dimmer switches, or other devices that may cause interference with the intercom system.

7. Do not install the master station on the opposite wall from the door station. If the units are too close, acoustical feedback may result.

TROUBLESHOOTING GUIDE:

#	PROBLEM	POSSIBLE CAUSE	SOLUTION
1	No call in from door to master, but communication works fine.	Reversed DAK-2S component module.	When door calls in, it shorts the # 1 terminal to the E terminal. If the DAK-2S is installed backwards the chime from the door call-in will not be heard. Install the DAK-2S component module with the bare wire end under the 1 terminal, and the door station 1 wire tied to the colored wire end of the DAK-2S.
2	When the talk button is pressed, the other master rings.	Missing or reversed DAK-2S component module.	Install the DAK-2S component module as described above and shown on dual master instructions.
3	When the talk button is pressed, feedback is heard at both masters.	Common power supply.	If both C-ML/A's share the same power supply, a ground loop feedback will occur when the talk button is pushed. Install separate SKK-620's for each master, or install batteries in each master.
4	Unit appears dead; no functionality.	Terminals 1 and - crossed.	"+ / -" are on left column, "E / 1" are on right column. If swapped, unit will appear dead. Verify that 1 wire from the door station is connected to 1, and negative of power supply is connected to -.
5	System squeals and batteries get hot.	Power supply and batteries both installed.	Take batteries out of the master station. Both power sources cannot be used simultaneously.
6	Chime tone sounds weak, lower frequency.	Weak batteries or low voltage.	If batteries installed, replace them. If power supply, check for 6V DC. If low, install new SKK-620 power supply.
7	Master stays on; does not time out.	Incorrect cable being used.	If the resistance of the wire is too great, usually from exceeding distance limitations, the master may not time out as designed. Refer to wire specifications in the instructions.
8	Voice volume is too loud or too soft.	Volume control not adjusted properly.	Remove front cover of C-ML/A and locate volume potentiometer through hole at the bottom of the unit. Use a small screwdriver to adjust the volume, clockwise to increase.
9	Chime tone volume is too loud.	Standard volume level.	There is not a separate call tone volume adjustment on the C-ML/A, so the volume level cannot be altered. Surface mount component level modification would be required, which is not practical.
10	RY-AC external signaling relay not working.	Missing or wrong connection.	Make sure the negative from the 12V DC supply for the RY-AC is connected to the negative of the C-ML/A master. Make sure the WHITE wire of the RY-AC is connected to the DAK-2S component module to 1 terminal, not negative terminal.

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